

REMARKS

The above-identified patent application has been reviewed in light of the Examiner's non-final Office Action having a mailing date of July 30, 2010. In the Non-Final Office Action mailed July 30, 2010, Claims 34-55 were pending in the application. Claims 34, 51 and 55 are amended. Thus, Claims 34-55 are present for examination. No new matter has been added by these amendments.

In view of the amendments and arguments presented herein, Applicant respectfully submits that the claims are in condition for allowance.

Rejection Under 35 U.S.C. § 112

The Examiner has rejected Claims 34-55 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner has objected that Claims 34, 51 and 55 recite the limitation of the controller controlling the sensor, which is considered to not be found in the original disclosure.

Without concession as to the propriety of the rejection, Applicant has amended Claims 34, 51 and 55 to delete the limitation of the controller controlling the sensor.

In view of the foregoing, Applicant submits that independent Claims 34, 51 and 55, and the remaining claims which depend from them, particularly point out and distinctly claim the subject matter which Applicant regards as the invention and requests the rejection under 35 U.S.C. § 112, second paragraph, be withdrawn.

Rejection Under 35 USC § 102

The Examiner has rejected Claims 51-55 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,823,817 to Van den Berg *et al* ("Van den Berg"). In order for a rejection under 35 U.S.C. § 102 to be proper, each and every claim element must be found in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

Van den Berg, at least, fails to teach, suggest, or describe several features in the independent and dependent claims, as amended herein. Accordingly, Applicant traverses this rejection and submits that Van den Berg does not anticipate the currently-pending claims and requests that the rejections under §102(e) be reconsidered and withdrawn.

1. Van den Berg does not teach use of a delay period during milk extraction

Van den Berg fails to teach, suggest, or describe use of a delay period *during* milk extraction, nor the use of a delay period by a controller *in the control of* the extraction process. Instead, Van den Berg simply references a time delay between deactivation of a teat cup (for example as prompted by a change in electrical conductivity that may indicate affected milk) and disconnection of a particular teat cup. Specifically, Van den Berg discloses a milking robot that disconnects a teat cup after “a period of time from deactivation of the teat cup” and “the means for disconnecting the teat cups into operation when the period of time has reached a certain time threshold value.” *See* Col. 8, ll. 20-24. There is no disclosure of a delay period used during the extraction process or controlled during the extraction process –only use in coordinating the period of time between deactivation of a teat cup and disconnection of a teat cup.

In contrast, embodiments of the Applicant’s invention control a delay period as an element of the sensor apparatus wherein the delay period is repeated for one or more extraction elements. *See*, for example, amended Claims 51 and 55.

Because Van den Berg does not teach, suggest, or describe the use of a delay period during milk extraction as recited in the claims, Applicant submits that the pending claims are not anticipated by Van den Berg. The §102(e) rejection should be withdrawn.

2. Van den Berg does not teach a sensor detecting milk abnormalities by comparing sensor output signals of milk extracted from the same udder

Van den Berg fails to teach a sensor detecting milk abnormalities by comparing sensor output signals of milk extracted from the same udder. Instead, Van den Berg discloses “comparing the momentary value of the milking parameter with the threshold milking parameter” (Col. 2, ll. 26-28) where the milking parameter is “an average value” of one or more milking parameters for a particular teat cup (Col. 1, ll. 54-55). Additionally, in a Van den Berg embodiment disclosing use of electrical conductivity measures among teat cups of the same animal, Van den Berg teaches determining milk abnormalities “depending on the *average* milk flow and the difference in electrical conductivity.” (Col. 8, ll. 63 – Col. 9, ll. 14, emphasis added). Lastly, Van den Berg teaches away from direct comparisons of sensor signals from particular teat cups in favor of comparisons with average values to remove “fluctuations or temporary perturbations present by nature in the measured values” (Col. 1, ll. 54-59).

In contrast, embodiments of the Applicant's invention disclose a sensor that detects milk abnormalities by comparing a sensor output signal indicating a value of the milk extracted from an udder quarter or half by an extraction element or elements with a sensor output signal indicating the value of the milk from other quarters or half of the same udder by an alternative extraction element or elements. *See*, for example, amended Claims 51 and 55.

Because Van den Berg does not teach, suggest, or describe a sensor detecting milk abnormalities by comparing sensor output signals of milk extracted from the same udder, a feature of Applicant's invention, Applicant submits that the pending claims, as amended herein, are not anticipated by Van den Berg and the Examiner's §102(e) rejection should be withdrawn.

3. Van den Berg does not teach use of a sensor associated with a single collection line

Van den Berg fails to teach, suggest, or describe use of a sensor associated with a single collection line. Instead, Van den Berg discloses use of a set of sensors *for each teat cup connected to individual milk collection lines* that later merge into a common collection milk glass. Specifically, Van den Berg discloses yielding milk per udder quarter of an animal "by means of teat cup 2 may be supplied *via its own separate milk* line 4 to a corresponding milk quantity meter or milk glass 3" which connects to a "discharge line 5 of milk glass 3 is coupled to a line 7 extended to a bulk milk cooling tank 8 for each teat cup 2." *See* Col. 5, ll. 15-23, emphasis added. Each milk collection line includes sensors, for example in "milk line 4 there is also included a temperature meter 11" whose outgoing signals are supplied to a computer 13. *See* Col. 5, ll. 24 – 61, and Fig. 1 inserted below. Further, Van den Berg discloses a series of separate milk collection lines for each teat cup, each with their own suite of sensors, in Fig. 2 inserted below. In Fig. 2, wherein an embodiment with four teat cups is disclosed, the use of four separate milk collection lines is evident.

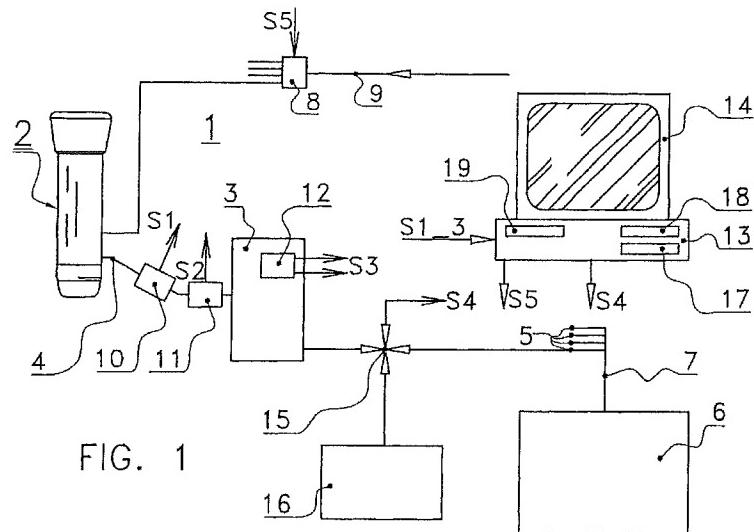


FIG. 1

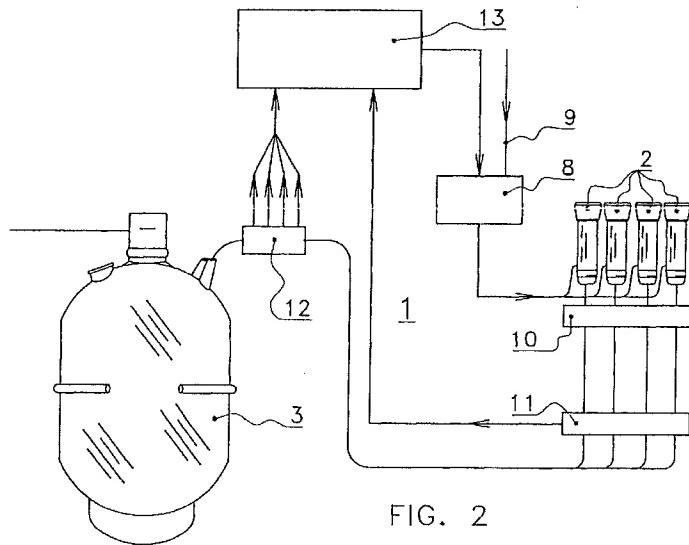


FIG. 2

In contrast, embodiments of the Applicant's invention disclose use of a sensor associated with a single collection line. See, for example, amended Claims 51 and 55.

Nonetheless, to facilitate prosecution, Claims 51 and 55 have been amended to more explicitly identify that the sensor senses extracted milk from only one extraction element or one pair of extraction elements at any one time.

Because Van den Berg does not teach, suggest, or describe use of a sensor associated with a single collection line, Applicant submits that the pending claims, as amended herein, are not anticipated by Van den Berg and the §102(e) rejection should be withdrawn.

4. Van den berg does not teach all features of applicant's invention

Because Van den Berg fails to teach, suggest, or describe all features of Applicant's invention, Applicant submits that the pending claims, as amended herein, are not anticipated by Van den Berg and the §102(e) rejection should be withdrawn.

The Office Action rejects dependent Claims 52-54. Because Claims 52-54 depend from allowable independent Claims 51 and 55, Applicants submit that the rejections of Claims 52-54 should also be withdrawn.

Rejection Under 35 USC § 103

The Office Action rejects Claims 34-42 and 46-50 under 35 U.S.C § 103(a) as being obvious over Van den Berg in view of U.S. Patent No. 4,538,634 to Seaborne ("Seaborne"). The Office Action also rejects Claims 34 and 43-45 under 35 U.S.C § 103(a) as being obvious over Van den Berg in view of U.S. Patent No. 4,011,838 to Nordegren *et al* ("Nordegren").

Applicants respectfully request reconsideration because the Office Action has failed to show a *prima facie* case of obviousness under 35 USC § 103. In order to establish a *prima facie* case of obviousness under § 103, there must be some suggestion or motivation to modify the reference or to combine the reference teachings, there must be a reasonable expectation of success, and the prior art reference or references must teach or suggest all the claim limitations. (MPEP § 2143.) However, all of the elements of the rejected claims cannot be found in the cited references, whether those references are considered alone or in combination. Also, the Office Action's proposed modification of Van den Berg by either Seaborne and Nordegren would render Van den Berg unsatisfactory for its intended purpose, thus there is no suggestion or motivation to make the proposed modification and the modification is not obvious. Accordingly, for at least the reasons below, Applicants submit that the rejections of the claims under 35 U.S.C. § 103 should be reconsidered and withdrawn.

1. The combination of Van den Berg, Seaborne, and Nordegren do not teach all of the elements of the rejected claims

The Office Action has acknowledged that Van den Berg does not disclose the activation of extraction elements in at least one of a cyclical, sequential or random manner. The Office Action has applied Seaborne as teaching activation of extraction elements randomly; the Office

Action cites Col. 8, ll. 20-25 of Seaborne. However, Seaborne does not teach activation of extraction elements randomly, and the Office Action's cited section is provided by Seaborne to *contrast* with his invention and distinguish his invention from the prior art (i.e. "Present type automatic pulsators...operate more or less at random", Col. 1, ll. 32-35). Instead, Seaborne teaches activation of extraction elements in a predictable pulse of positive and negative pressure down a line of teat cups, i.e. "the invention will be described with reference to a reversing type pulsator i.e: a pulsator which on receiving an air pulse to its timing or to its actuating chamber, produces an ensuing vacuum pulse to its attached teat cups and vice versa." See Col. 2, ll. 25-29. Thus, the activation of extraction elements in at least one of cyclical, sequential or random manner, as provided in amended Claim 34, is not disclosed.

As stated, the Examiner has acknowledged that Van den Berg does not disclose the activation of extraction elements in at least one of cyclical, sequential or random manner. The Office Action has applied Nordegren as teaching activation of extraction elements sequentially. However, Nordegren does not teach the activation of extraction elements into a single collection line through a controller that controls the activation and timing of the extraction elements and a delay period (as disclosed in one embodiment of Applicant's invention described in amended Claim 34).

Nonetheless, to facilitate prosecution, Claim 34 has been amended to more explicitly identify that the sensor senses extracted milk from only one extraction element or one pair of extraction elements at any one time.

2. Examiner's proposed modification of Van den Berg by either Seaborne and Nordegren would change the principle of operation of Van den Berg

If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then the combination or modification cannot be held obvious. *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984). The Examiner's proposed modification of Van den Berg by either Seaborne and Nordegren would render Van den Berg unsatisfactory for its intended purpose because the activation of extraction elements in at least one of cyclical, sequential or random manner would destroy the Van den Berg's required need to sense and calculate average values of milking parameters for particular milk lines which in turn,

enables the Van den Berg device to deactivate (if not disconnect) certain identifiable teat cups. A random activation sequence of teat cups would vitiate that principle of operation.

3. Applicant's Invention is Not Obvious in view of Van den Berg, Seaborne and Nordegren

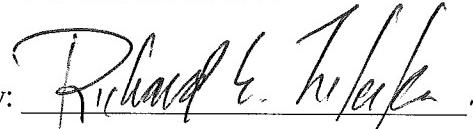
The Office Action has pointed to no suggestion where one skilled in the art would combine the teachings of Van den Berg with Seaborne and Nordegren with reasonable expectation of success so as to teach or suggest all the claim limitations, except from using Applicants present invention as a template and through hindsight reconstruction of the present claims. Therefore, the Office Action's 35 USC § 103 rejection of Claim 34 should be withdrawn. Accordingly, because Claims 35-42 and 43-50 all depend from allowable independent Claim 34, Applicants submit that the rejections of Claims 34-50 should also be withdrawn.

Conclusion

Based on at least the foregoing, Applicant believes that all pending claims are in condition for allowance and such disposition is respectfully requested. Applicant also respectfully traverses the remainder of the Examiner's assertions as to what is disclosed in and/or taught by the cited prior art. That is, since the amendment and arguments made herein are believed to sufficiently address the rejections, any assertions by the Examiner which are not specifically addressed are not admitted as true. Furthermore, any arguments concerning motivation to combine, rationale to combine, etc. and not specifically provided in this response are not waived.

Respectfully submitted,
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